

LINCOLN MANUAL WELDING SUPPLIES and ACCESSORIES

give long, low cost
service to
particular welders

LINCOLN SUPPLIES

Quality Products, Operator Approved—From the new Cooltong holders to the well-established Non-Spatter clear lenses, Lincoln supplies help operators to make welds they are proud of. Holders have the comfortable "feel" of proper weight and balance, cables are extra flexible, head shields are lightweight and comfortable to wear, and lenses resist spatter and are distortion-free. These features reduce fatigue and eliminate the minor distractions that reduce operator efficiency. Welders concentrate on welding; do a better and faster job.

Few Replacements—Lincoln equipment is constructed to withstand rough use. Ample quantities of carefully selected materials are used to be sure that Lincoln supplies last longer and need fewer replacements. When parts ultimately wear out, easily installed replacements restore equipment to like-new condition.

Low Cost—The price of Lincoln supplies and accessories is surprisingly low. Ask your Lincoln representative for prices, check your annual usage of supplies, and then figure the savings you earn on the basis of price alone. The dollars saved will amaze you.

THE LINCOLN ELECTRIC COMPANY

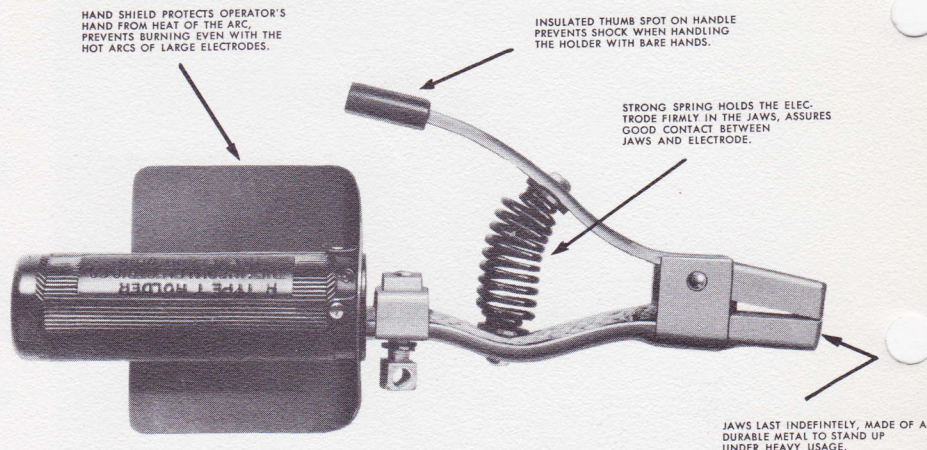
The World's Largest Manufacturer of Arc Welding Equipment and Electrodes
CLEVELAND 17, OHIO

LINCOLN
...USA

LINCOLN High Quality, Low Cost

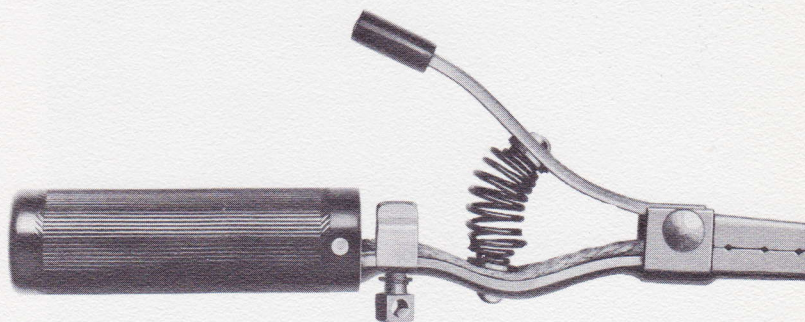
HT-500

For "pouring in" weld metal even with 5/16" iron powder electrodes. Metal shield protects hand from heat of arc. Rated 500 amperes; for 3/32" to 5/16" electrodes. Weight, 24 ounces.



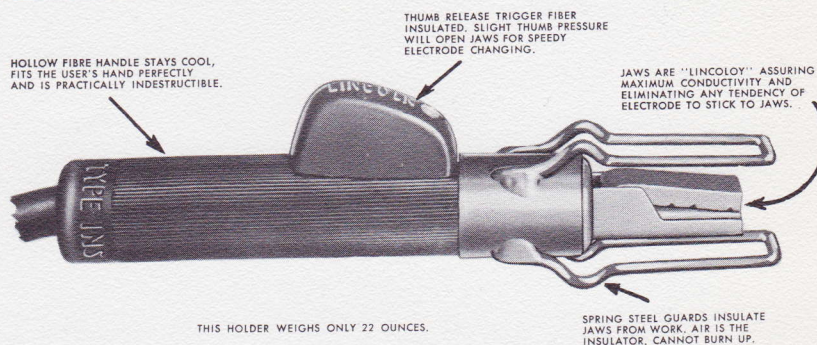
T-300

Similar to HT-500 except rated 300 amperes and has no metal hand-shield. For use with intermediate size electrodes—3/32" to 1/4"—and weighs only 18 ounces. Both T-300 and HT-500 are exceptionally low cost.



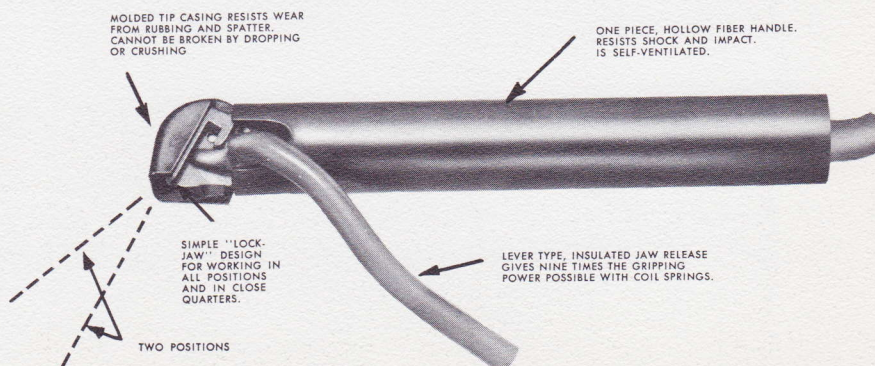
INS-300

An unusually lightweight, self-cooling, 300 ampere fully insulated holder for exceptionally easy handling in close quarters. For 1/16" to 1/4" electrodes; weight only 22 ounces.



LJ-1 250

Aids critical sheet metal welding; very lightweight (only 16 ounces), but rugged, with 2-position jaws to help operator maintain desired arc length even with 1/16" electrode. Rated 250 amperes; for 1/16" to 3/16" electrodes.



ELECTRODE HOLDERS

RUGGED CONSTRUCTION . . .
INSULATED NOSE IS VIRTUALLY
UNBREAKABLE, FIBRE GLASS RE-
INFORCED PLASTIC.

AIR COOLED, SELF-VENTILATED . . .
THE ONLY HOLDER COOL ENOUGH
AT 400 AMPS TO HOLD IN YOUR
BARE HAND!

WIDE CAPACITY . . . HANDLES
1/8" TO 5/16" ELECTRODES.
HAS EXTRA WIDE OPENING FOR
FAST RELEASE OF STUBS.

SOFT, NON-BURNING
RUBBER INSULATOR

INSULATOR
PERMITS HANGING
WITHOUT SHORTING

FULLY INSULATED
STAINLESS STEEL SPRING

SPECIAL
HIGH-CONDUCTIVITY
HINGE

REPLACEABLE,
BREAK-PROOF
INSULATION

DURABLE,
HIGH-CONDUCTIVITY
BODY

REPLACEABLE
DOUBLE-CONTACT
JAW

POSITIVE CONTACT
CABLE CONNECTION

POSITIVE GRIP,
SELF-VENTILATED HANDLE

Cooltong 300, 400

Fully insulated, with replaceable jaws and insulation, Cooltong holders are cool enough to hold in a bare hand after welding steadily at rated current. Unique cable connection gives 98% electrical efficiency—eliminates soldering. Just quickly tighten a single nut for positive stay-tight connection. Cable strands cannot flex and break. The two sizes are rated at 300 and 400 amps; weight 18 and 24 ounces respectively. Each handles 3/32" to 5/16" electrodes. See Bulletin 9303.1 for more details.



LINCOLN Light Weight, Durable

HEADSHIELDS

Lincoln Coolshields are designed to give maximum protection, the utmost comfort, unsurpassed convenience, and outstanding durability. Here's how:

Maximum Protection

Sturdy, molded shield available in four styles to shield neck and face of every wearer — fibreglas and polyester resin materials are self-extinguishing; can't burn — glassholders are perfectly light, leakproof.

Utmost Comfort

Thermoplastic headgear with molded edges is pliable to formfit the head yet firm enough to hold its basic shape — flexible suspension system and even specially designed rivets help provide unsurpassed comfort.

Four-position stop, and a chin guard in Coolshields 2, 3 and 4, prevent annoying raps in the neck.

Unsurpassed Convenience

Quick, ratchet-knob adjustment of head size — eye

level adjustment of lens with four-position stop in the swivel connection — easy changing of lenses — adjustable friction in swivel joint — all are convenience items that help Coolshield wearers do their job more easily and quickly.

Outstanding Durability

Tough and strong materials, beaded edges and molded design give Coolshield shells exceptional resistance to abuse, breakage and warpage.

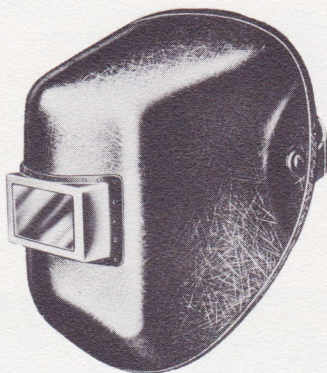
Lens holders are durable and lightweight steel or Dowmetal.

Enclosed working parts in size-adjustment mechanism last longer.

Coolshield headshields have a long life.

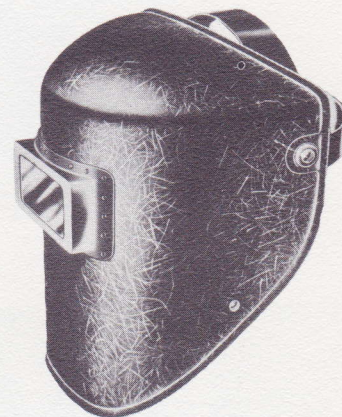
So, select the style that suits you best, but be sure to specify Coolshield.

COOLSHIELD 1



COOLSHIELD 1 headshields are unusually small and lightweight. They have an integral lens holder and a curved front. Excellent for working in confined areas and for men with short necks.

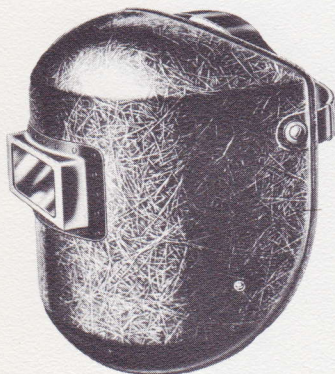
COOLSHIELD 2



COOLSHIELD 2 headshields are straight faced with integral lens holder. They weigh less than helmets with flip-front lens holders.

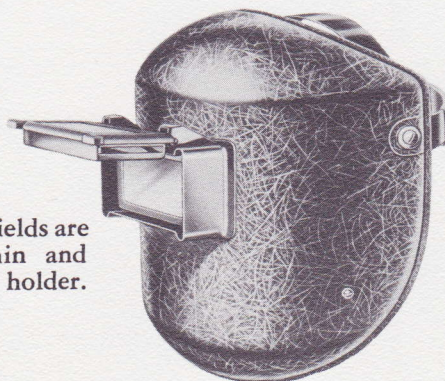
COOLSHIELD 3

COOLSHIELD 3 headshields are curved under the chin and have an integral lens holder.



COOLSHIELD 4

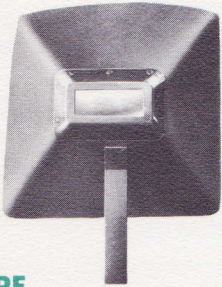
COOLSHIELD 4 headshields have flip-front lens holder and a face that curves under the wearer's chin for maximum protection against burns from arc rays.



Type 70 headshields (not shown) have integral lens holder; equipped with Type 3 headgear.

PROTECTIVE SHIELDS

FACE AND POCKET SHIELDS



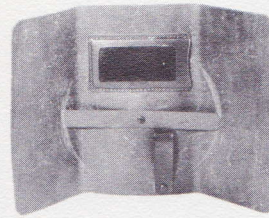
LPF

LPF face shields are ideal for demonstrations and many bench welding applications.

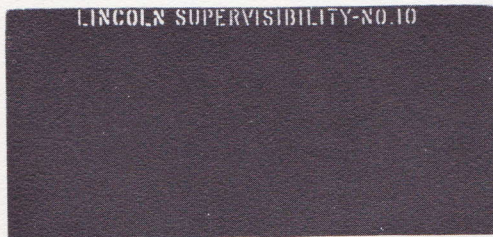


PFS

PFS pocket shields are excellent for the welding inspector or supervisor; fold and fit easily into a coat pocket. Made of very heavy leather, they last indefinitely. Holds standard size lens.



LENSES AND COVER GLASS



"**Super-Visibility**" lenses are precision made to give the welder the most protection and best visibility. Unsurpassed in quality, they far exceed federal specifications.

"**High-Visibility**" lenses give the best protection for the lowest cost. Exceeds federal specifications on control of injurious light rays.

"**Non-Spatter**" clear glass resists spatter sticking—improves vision and lasts longer.

"**Plain**" clear glass protects colored lens at lowest cost.

HEADGEAR

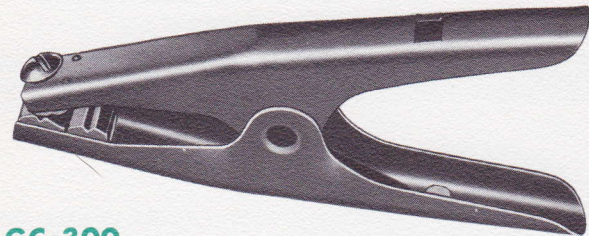
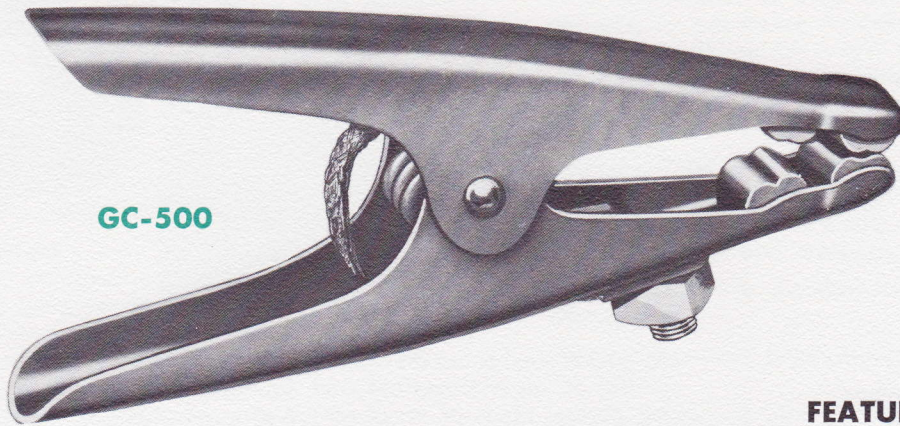


No. 6

Lincoln No. 6 headgear is fabricated from durable, firm plastic which flexes enough to comfortably fit the head yet holds its basic shape. It provides quick, ratchet-knob adjustment of headsize. Working parts of ratchet are enclosed to keep out dirt and provide long life. Fits all Lincoln Coolshields and some other headshields too.

LINCOLN GROUND CLAMPS

GC-500



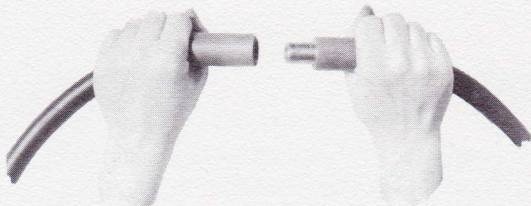
GC-300

GC-500 and GC-300 are exceptional values in ground clamps. These clamps improve operator efficiency by letting him make his ground connections quickly and positively. They eliminate frayed tempers and wasted time frequently caused by poor ground connections. Yet, they are amazingly low cost. Check these features, then equip your welders with Lincoln GC- ground clamps.

FEATURES

1. Large capacity—500 ampere capacity of GC-500 handles even the heaviest currents without damage or overheating. GC-300 handles a full 300 amperes—enough for many 1/4" electrodes.
2. Positive contact—heavy, rugged spring clamps the Lincalloy jaws tight on the work. Internal connection between jaws of GC-500 gives good contact even if one jaw is completely insulated from the work.
3. Easy operation—operator just squeezes, slips the jaws onto the work and lets go. No bothersome bolts or screws to waste time. Jaws open full 2½ inches to accept even unusually thick parts.
4. Easily attached—lug on the welding cable bolts directly to the clamps. With a simple screwdriver or wrench, the job is done in seconds.

LINCOLN CABLE CONNECTORS



Quick-Detachable Connectors are jack and plug type connectors that lock in position to give an efficient joint that won't accidentally pull apart or work loose. Fully insulated to give the joint complete protection from grounding, Q-D connectors are the quickest, easiest,



most efficient way to make a connection. Available to fit all cable sizes.

Cable lugs are needed to attach cables to welding machines, panels or switchboards. Inexpensive Lincoln lugs are available for all sizes of welding cables.

Both cable lugs and "Q-D" connectors may be factory installed on your new cable for a very reasonable charge.

LINCOLN WELDING CABLE



Flexibility is probably the most sought after characteristic in welding cable, both for longer cable life and less operator fatigue. Lincoln cables have thousands of hair-like copper wires, each free to move and bend independently. These specially stranded wires are the heart of Lincoln's unusually flexible cable.

A paper wrapping around the stranded wires lets them move independent of the heavy insulating and protective cover. This wrapping adds considerably to the flexibility of Lincoln cables.

Finally, the materials used in the cover itself affect the cable's flexibility. Lincoln cables in both price ranges have high grade rubber covers that bend easily and provide maximum cable flexure.

Wear resistance is the other desired characteristic of welding cables. In use, welders continually drag the cable over sharp edges of the work and across floors that are sometimes wet with oil and water and are always abrasive. Lincoln cable covers resist this wear and gives long life under the severest working conditions. If your cables seem to wear out too fast, why don't you buy "Lincoln-

ductor" or "Stable Arc" and get the best possible cable life?

STABLE ARC

This green, fluted, 60% natural rubber covered cable gives the best service and life under all conditions. The cover has an inner and outer layer with a reinforcing cord braid between them. The material and design of the cover provide unsurpassed flexure and wear resistance. Operators like the way it handles, supervisors appreciate its long life and reduced replacement costs. Particularly desirable for extra flexible "whip" leads (a short, 8-12 foot lead between the holder and the rest of the electrode lead.)

LINCOLNDUCTOR

This GR-S synthetic rubber covered cable has the same interior as "Stable Arc" and provides unusual flexure and wear resistance for its low cost. It is particularly well applied on applications where any cable is frequently and unavoidably damaged by cutting when heavy equipment drops on or slides over it. "Lincolnductor" gives best performance at lowest cost.

RECOMMENDED CABLE SIZES
FOR MANUAL WELDING*

Machine Size in Amperes	Duty Cycle (%)	Cable Sizes for Combined Lengths of Electrode plus Ground Cable				
		Up to 50 feet	50-100 feet	100-150 feet	150-200 feet	200-250 feet
180	20 & 30	#4	#4	#3	#2	#1
200	60	#2	#2	#2	#1	#1/0
250	30	#3	#3	#2	#1	#1/0
300	60	#1/0	#1/0	#1/0	#2/0	#3/0
400	60	#2/0	#2/0	#2/0	#3/0	#4/0
500	60	#2/0	#2/0	#3/0	#3/0	#4/0
600	60	#2/0	#2/0	#3/0	#4/0	**

* For fully automatic Lincolnweld or Innershield welding, use two 4/0 cables for less than 1200 amperes or three 4/0 cables for more than 1200 amperes.

** Use double strand of #3/0.

LINCOLN CARBON ARC TORCH

for Heating
Bending
Straightening
Hardsurfacing
Soldering
Brazing

The carbon arc torch is a precision tool that lets the operator apply controlled heat to his work for a multitude of different jobs.

The torch is easily adjusted with the thumb control for the proper arc to generate the desired heat. The simple adjustment can be made even while the torch is in use.

The arc torch is recommended for use with AC welding machines of at least 100 amp capacity.

It is equipped with a straight ferrule at the end of one lead for insertion into the jaws of an electrode holder. The other lead is equipped with a spring clip for clamping onto the ground lead or the work table if grounded to the machine.

The carbon arc torch is lightweight and has a hand guard to protect the operator from heat of the arc.

Carbons for both the arc torch and conventional electrode holders are available from Lincoln. Arc torch carbons have special copper coating for longer life and reduced wear on torch, available in 1/4", 5/16" and 3/8" diameters, 6 inches long. Plain manual carbons for electrode holders are available in 5/32", 3/16", 1/4", 5/16", 3/8" and 1/2" diameters, 12 inches long.

